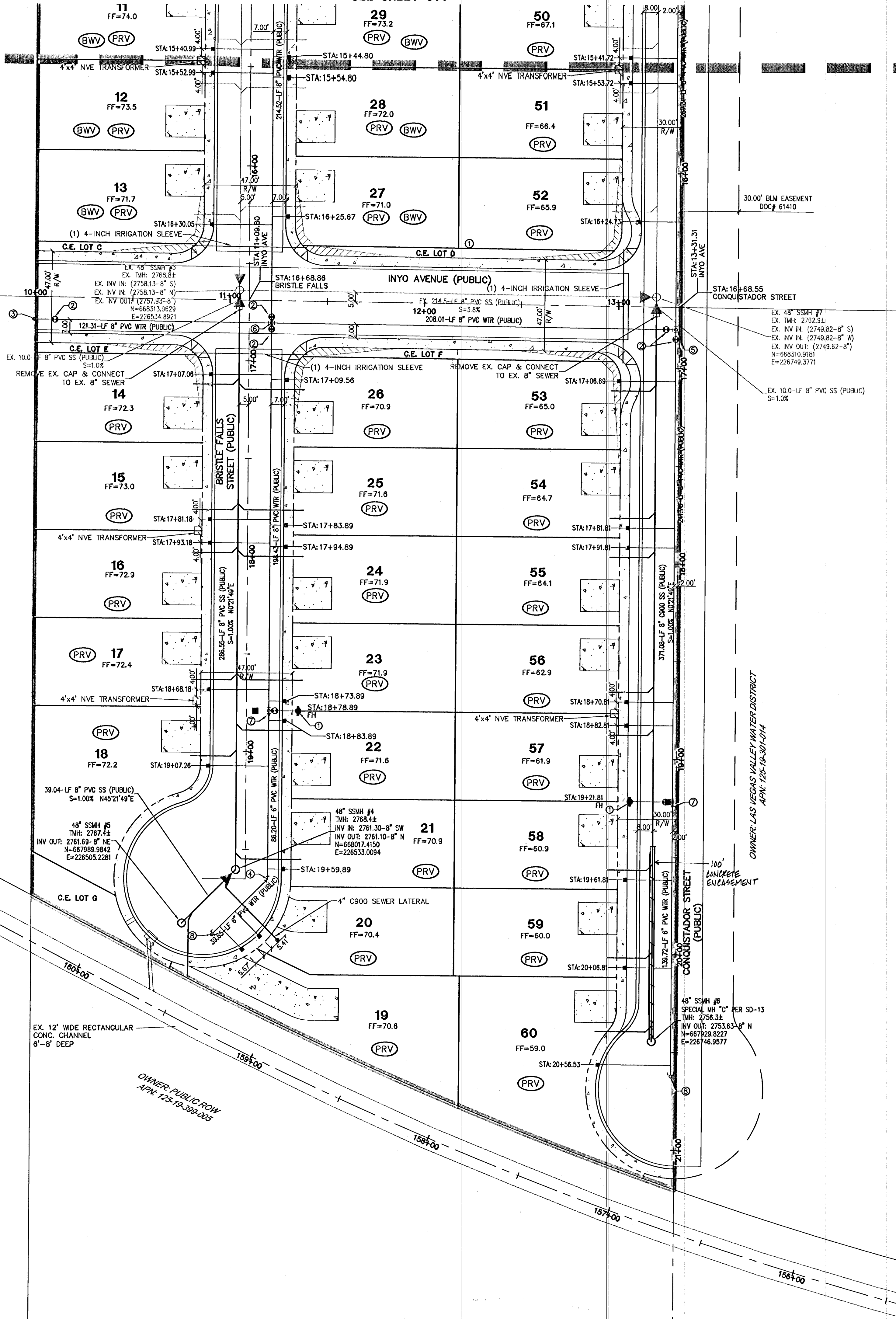


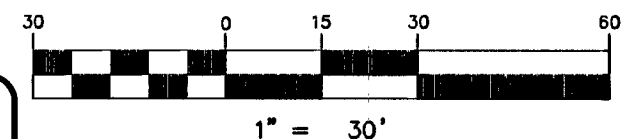
SEE SHEET UT1



SEWER CONNECTION NOTE:
 ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

- WATER**
- ① FIRE HYDRANT ASSEMBLY (INCLUDES 8" x 6" TEE & 8" W/ PER UDACS PLOT. 30)
 - ② 8" GATE VALVE PER UDACS PLOTS. 30 & 39
 - ③ 8" CAP W/ 2" B.O PER UDACS PLOT. 38
 - ④ 8" 45° BEND PER UDACS PLOT. 31
 - ⑤ 8" 90° TEE PER UDACS PLOT. 31
 - ⑥ 8" CROSS PER UDACS PLOT. 31
 - ⑦ 8" 90° REDUCER PER UDACS PLOT. 30
 - ⑧ 8" CAP W/ 2" B.O PER UDACS PLOT. 35
 - ⑨ 10" x 8" TAPPING SLEEVE W/ 8" TAPPING VALVE PER UDACS PLOT. 34 & UDACS SEC 2.24.01.A
 - ⑩ 3/4" RESIDENTIAL METER PER UDACS PLOT. 2
- SEWER**
- ① STANDARD MANHOLE PER SD-1A & SD-1B
 - ② 4" SEWER LATERALS PER SD-22
 - ③ 4" C900 SEWER LATERALS PER SD-22
 - ④ 8" SEWER MAIN PER SD-1B
 - ⑤ BACKWATER VALVES PER SD-29

GRAPHIC SCALE



Call before you Dig
 1-702-433-5700
 CLARK COUNTY TRAFFIC OPERATIONS
 1-702-433-5700

Call before you Overhead
 1-702-227-2929
 CLARK COUNTY TRAFFIC OPERATIONS
 1-702-227-2929

ENGINEER DISCLAIMER NOTE:
 UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION.
 NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

ALL NEW WATER MAIN TO HAVE MINIMUM 42" DEPTH OF COVER PER UDACS SECTION 2.08

NOTE:
 VERIFY AND LOCATE ALL EXISTING UTILITIES WITHIN THE PROJECT WORK AREA.

WATER MAIN JOINT DEFLECTION (PVC, 4"-24")
 PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
 FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

NOTE:
 INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15

UTILITY CROSSING NOTE:
 ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

EXISTING SERVICES
 IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE UDACS STANDARDS, AND AT THE DEVELOPER'S EXPENSE.

FIRE DEPARTMENT APPROVAL
 APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

NOTE TO ENGINEER
 A MAXIMUM OF 30 WATER SERVICES CAN BE FED OFF OF A SINGLE FEED WITH MAXIMUM OF THREE FIRE HYDRANTS.

TRAFFIC DELINEATION
 ① INSTALL BLUE RAISED REFLECTIVE PAVEMENT MARKERS PER NOTE ON SHEET TR1

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

- SQUARE FOOTAGE: <3600 SQ. FT.
- LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQ. FT.
- BUILDING HEIGHT: 2'7"
- NUMBER OF STORIES: 2
- TYPE OF CONSTRUCTION: V
- OCCUPANCY: SFR
- FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

REVIEWED BY: *[Signature]*
 DATE: 9/15/14

BASIS OF BEARINGS

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 1983 (COORS 2011) EPOCH 2010

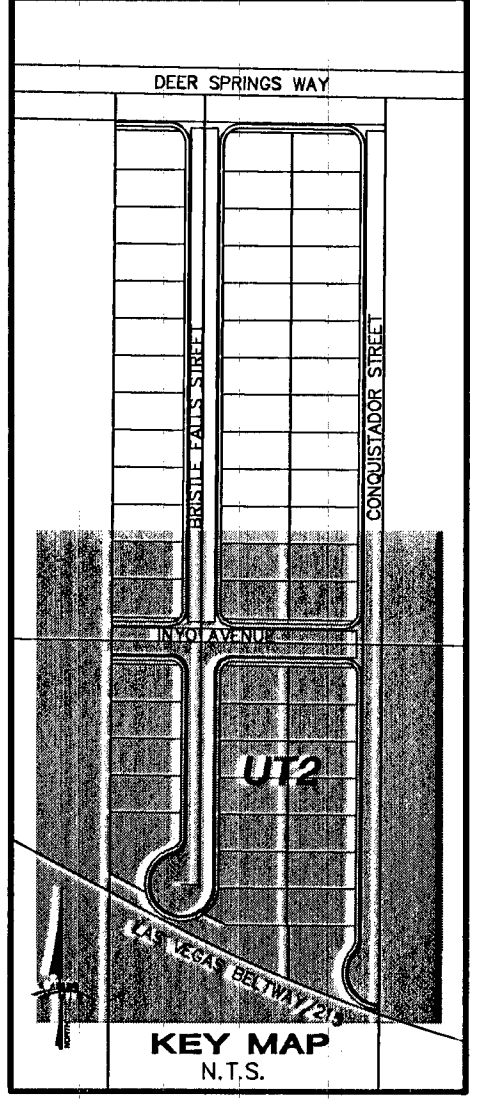
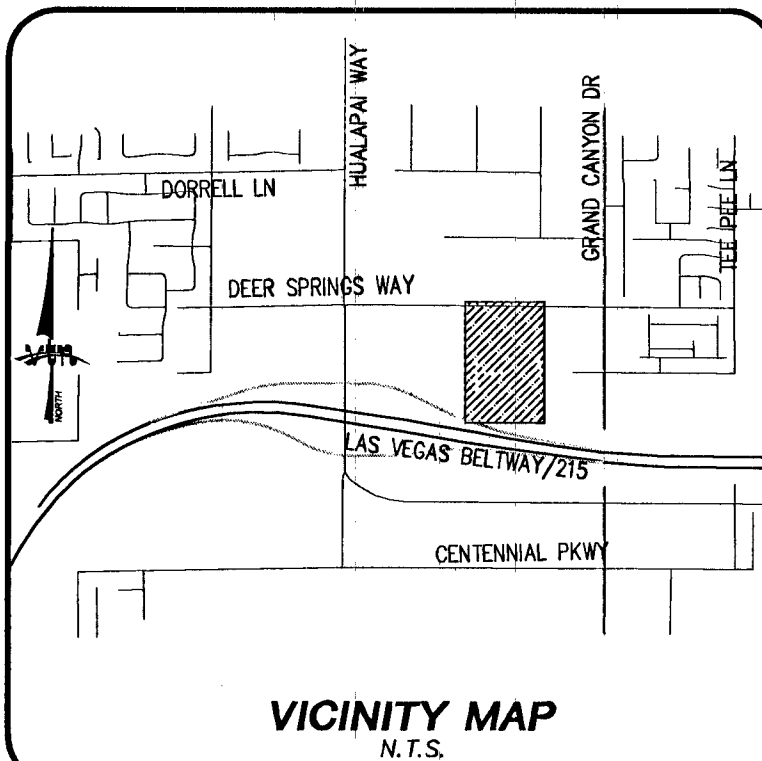
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS

PROJECTION: TRANSVERSE MERCATOR
 STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
 LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
 WORKING AT GRID ORIGIN: 200,000,000 M (656,166,666.667 FTUS)
 EASTING AT CENTRAL MERIDIAN: 100,000,000 M (328,083,333.333 FTUS)
 SCALE FACTOR ON CENTRAL MERIDIAN: 1.0001 (EXACT)

NOTES:

- ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
- GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.



RYLAND HOMES
 8925 W. RUSSELL ROAD, SUITE 200
 LAS VEGAS, NV 89148
 (702) 360-7500

UTILITY PLAN 2

BRISTLE FALLS UNIT 2

CITY OF LAS VEGAS
 2727 SOUTH RAINBOW BOULEVARD
 LAS VEGAS, NEVADA 89146-5146
 PH. (702) 673-7500 FAX (702) 362-2597 WEB WWW.LVNV.COM

APPROVALS:
 APPROVED FOR CONSTRUCTION
[Signature]
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
 DATE 9/18/14 PROJECT 122759
 LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

PROJECT BENCHMARK
 PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)
 CITY OF LAS VEGAS BENCHMARK: 5LV90-19W4 2008 ADJUSTMENT (UPDATED 5/24/10) NAV88 ELEVATION: 857.697 METERS (2813.96 FEET)
 RIVET AND PLATE CONCRETE PAD (LVVWD) 100'SE HUALAPAI WAY AND DEER SPRINGS.

EXPIRES 06-30-16

PROFESSIONAL ENGINEER STATE OF NEVADA
 AARON M. YAMACHIKA
 LICENSE NO. 1415079
 DATE 9/15/14

SHEET UT2
 9 OF 19 SHEETS
 DRAWING NO. 10744994-2

REVISION

NO.	DATE	BY	REVISION
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